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ABSTRACT

Children will individually react to television program content according to different psychological characteristics, one of which is self-esteem. Results of one study revealed a definite relationship between a child's self-esteem and his "modeling," or imitative behavior, after observing a televised film. A self-esteem inventory was administered to elementary school students, and those who scored in the first and fourth quartiles were selected for observation. Half of the group viewed a special film that depicted both prosocial and antisocial actions and then were allowed, individually, to play with toys in a room similar to the one shown in the film. The others played with the toys in the same room but had not first seen the film. Results indicated that a low self-esteem child imitated more and to a greater extent the prosocial than the antisocial behaviors viewed on television compared to high self-esteem children. High self-esteem males imitated antisocial behaviors to a significantly greater extent than all females or low self-esteem males. Sex and self-esteem, together with the behaviors viewed in the television film, were reliable predictors of antisocial or prosocial behaviors. (RN)

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Pro and Antisocial Television
Content and Modeling by High and Low
Self-esteem Children

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ABSTRACT: 120 second and third grade male and female S were administered a self-esteem inventory. The first and fourth quartiles were selected for inclusion into either the TV condition, who viewed a video-taped segment displaying prosocial and aggressive behaviors, or the NoTV condition, who viewed no such behaviors. S's behaviors were then rated in a 20 minute play session by a judge who was naive to their esteem level and condition. A general relationship between self-esteem level, S's sex and modeling from television was found. After viewing a television segment in which prosocial and aggressive behaviors are shown, low self-esteem S, regardless of sex, model the prosocial behaviors more than the aggressive behaviors; high self-esteem S model the aggressive behaviors. There were no sex differences in modeling prosocial behaviors, but high self-esteem males show more aggressive modeling than low self-esteem males and all females.

Pro and Antisocial Television Content and Modeling by High
and Low Self-esteem Children

Writing in the Surgeon General's Report on Television and Social Behavior, Liebert and Baron emphasized the importance that individual differences play in affecting what use children make of their television viewing. They stated, "It is clear that not all young children will become more aggressive, even temporarily, as a function of observing aggressive programs. It is thus important to determine the antecedents and correlates of such reactions to (televised) violence."¹ It was the purpose of this study, then, to examine one such important behavioral antecedent, self-esteem, as it relates to the quality and quantity of learning that the child experiences as a result of his television viewing.

That television viewing serves as more than "escape" for children has long been an accepted part of our knowledge. Experimental and correlational research on the effects of television viewing on the observers' subsequent behavior has indicated that television serves an important social utility function² and, as such is used "to compensate for abortive or ineffective social relationships (and) to maintain extant and presumably effective ones."³ If this is the case, then different children with different psychological needs and characteristics will react to and use television differently.⁴ One such psychological characteristic is the individual's level of self-esteem, an important determinant of an individual's behavior and, according to Rosenberg, the major single "anchorage point" to which new experiences or stimuli are assimilated into the person's existing frames of reference.⁵

Despite a lack of definite empirical evidence as to the relationship between the observer's level of self-esteem and his propensity to model the behaviors he sees on television, there is substantial, if tangential, evidence that suggests that a low level of self-esteem would indeed be related to greater amounts of modeling from television. First, low self-esteem individuals are field-dependent,

and as such use concrete environmental cues, such as those that are provided by ever present and attractive television models, to evaluate new information and they tend to passively accept and conform to the influence of the prevailing environment or field.⁶ Second, low self-esteem individuals are likely to be more susceptible to both normative and informational social influences in making judgments than high self-esteem individuals.⁷ Television models can and do provide such social influences. Finally, it has been demonstrated that the low self-esteem individual, because of an apparent heightened responsiveness to reinforcement, will engage in continuing attempts to be the same as or similar to other people in order to receive that reinforcement.⁸ Television provides numerous and attractive models for the low self-esteem individual to "be the same as."

Although this research suggests that there can be a direct relationship between a low level of self-esteem and subsequent modeling from television, Tasch⁹ failed to find any such relationship. Moreover, although they used actual rather than symbolic models, Stotland and Cottrell¹⁰ also failed to find any evidence for this relationship. This research, however, failed to consider the suggestions of Rosenbaum, Horne and Chalmers who stressed the need for control of situational contingencies, and of League and Jackson, who stressed the need for predetermining the subject's ability to judge the stimuli with which he is presented.¹¹

The present experiment tests the general hypothesis that low self-esteem children will model more of what they see on television than high self-esteem children. Unlike past research efforts, the subjects will have the opportunity to model any of a number of behaviors, both prosocial and antisocial. Because, if the low self-esteem individual's increased modeling is a function of his desire to receive reinforcement or to become "better" in his own eyes and in the eyes of others, the type of behavior that he is presented with will obviously be crucial to the quantity and quality of modeling behavior that he will subsequently engage in. These low self-esteem children, seeking to improve their self-esteem, will turn

to and model the behaviors that they see demonstrated by attractive, successful and ever present television models, but that modeling will be selective.

Sex differences in modeling behavior should also be noted. Although not dealing specifically with self-esteem, several researchers have noted that, in the modeling of aggressive behaviors, males tend to exhibit a greater amount of such behavior; but, in the modeling of non-aggressive behaviors both males and females appear to display equal levels of modeling.¹² This notion, that the individual's sex interacts with the type of behavior presented to the observer, seems reasonable in that the appropriateness or inappropriateness of modeled behaviors for the individual is apparently a function of role expectancies and past reinforcement histories.

Based on the literature which suggests this relationship between self-esteem and modeling from television, the following specific hypotheses were developed and tested, predicting an overall interaction between the variables of sex, self-esteem (high versus low), and viewing condition (television versus no television):

1. Children with low levels of self-esteem will display a significantly greater amount of imitation of both pro and antisocial behavior from viewing a television segment than will children with high levels of self-esteem.
2. Because antisocial behaviors promise them less positive reinforcement, children with low levels of self-esteem will display a significantly greater amount of prosocial modeling behavior, both imitative and non-imitative, than children with high levels of self-esteem after viewing a television segment.
3. Males and females with comparable self-esteem levels will display relatively equal amounts of modeling of prosocial behavior, but males will display a greater amount of antisocial modeling behavior, antisocial behavior being sex-inappropriate for females, thus promising them less reinforcement.
4. High self-esteem males will display significantly more antisocial behavior than

low self-esteem males; for low self-esteem males, antisocial behavior is more often associated with punishment and nonreinforcement rather than with reward.

METHOD

Self-esteem Inventory

A total of 20 items from the elementary form of Gordon's "How I See Myself" self-rating scale¹³ were administered to 120 second and third grade children aged seven to nine at the Rice Square Public School in Worcester, Massachusetts. These items represented the Interpersonal Adequacy and the Physical Appearance factors of Gordon's scale. The "How I See Myself" scale was designed as a group administered inventory. However, Ellis¹⁴ objected to such impersonally administered self-rating inventories on the grounds that subjects often attempt to "put their best foot forward" or often do not completely understand the individual scales. To guard against such possibilities, each child was interviewed individually, in a face-to-face format, with the experimenter reading each statement on the inventory and recording the subject's subsequent responses. Coopersmith and Mann have both demonstrated the validity of such a procedure in obtaining an accurate¹⁵ assessment of the individual's level of self-esteem.

After the self-esteem scores were tabulated, the first and fourth quartiles (total N=60) were chosen as the points below and above which subjects would be chosen for inclusion into the actual conduct of the experiment.¹⁶ The self-esteem scores for the high self-esteem subjects ranged from 81 to 92 (\bar{x} of 86.1) out of a maximum score of 100. The scores for the low self-esteem subjects ranged from 30 to 67 (\bar{x} of 59.9).

Subjects

The subjects were 33 boys and 27 girls. The 18 male and 12 female self-esteem subjects were assigned at random to the Television Model Exposure group (TV) and

to the No Model Exposure group (NoTV). Likewise, the 15 male and 15 female high self-esteem subjects were randomly assigned to these two conditions.

As Gordon and others have pointed out, young females tend to score higher on self-esteem inventories than young males. This explains the unequal number of males and females in the low self-esteem group. To have created equal cell numbers according to sex would have reduced the distinction between high and low self-esteem for the entire sample. That is, if female subjects were added to this group and male subjects deleted, the self-esteem scores of these additional females would have been significantly higher than those of the boys that would have been excluded. As this study's primary independent variable was self-esteem, it was felt that the benefits of more widely divergent self-esteem levels outweighed the convenience of having an equal number of subjects per cell.

Experimental and Control Conditions

The 30 subjects in the experimental (TV) condition viewed a 10 minute video-taped television segment depicting two adult male models engaging in pro and antisocial behaviors. Each subject was escorted individually from his classroom to a small room which included a video-tape replay unit, two tables, and several chairs. The experimenter explained that, as payment for helping with his project (the initial self-esteem inventory), he had arranged an "extra recess" for the child. Informing him that there was already someone at "recess," the experimenter asked the child to sit and watch television while he waited his turn. The experimenter then busied himself with some paperwork and the child was left to watch television.

At the conclusion of the video-taped segment, the experimenter explained to the child that he had put "all kinds of toys" in the "recess room." He informed the subject that he would be free to play with any and all of the toys for 20 minutes, after which a woman (the experimenter's assistant) would come to get him and return him to his classroom. He was

-6-

further told that, to keep people from interrupting him, the window to the room had been covered by a large mirror (actually a one-way mirror through which he could be observed and his behavior rated). At the end of the 20 minutes, the subject was returned to his classroom.

The exact same procedure was followed with children in the control condition. The only difference between the two conditions was that the subjects in the control (NoTV) group watched an 11 minute "model-less" film entitled "Introduction to Feedback" in lieu of the experimental video-taped stimulus.

Experimental Stimulus

The video-taped stimulus shown to the 30 experimental subjects was a 10 minute, black and white program. The show was accompanied by a symphony orchestra version of "The Sorcerer's Apprentice" and opened with the title, "The Goony Show." The segment closed with the words, "The End." The music and titles were added to give the segment an air of authenticity.

As the segment opened, both adult male models were seated at a table, one playing with a deck of large cards and the other playing with modeling clay; then they moved to the blackboard and began to scribble furiously. They then proceeded to try their hand at jumping rope and at the Hula Hoop. After repeated failures, they threw away these toys and began to empty a waste paper basket and spill a glass of water, throw balls and toys at each other, punch and kick the Bobo Doll and hit it with the Hula-Hoop, jump rope and a plastic baseball bat, and kick around all the toys that were within reach. Then, realizing the mess that they had made, they erased the black board, wiped up the spilled water, picked up the paper and put it in

the basket, put all the toys in their proper places, and sat down. One began playing with a set of building blocks, the other played peacefully with a bag of plastic army men. Soon, a third person entered the room, asking them to leave. The first model became irate, began to throw toys around and then left. The second model arranged his toys neatly on the table and left quietly.

Response Categories

The experimental room contained a variety of objects and toys, most of which were present in the television segment. Four general response categories were established: (1) Imitative prosocial. Any of the peaceful or prosocial behaviors that were exhibited by the models and subsequently demonstrated by the subjects were included in this category. Such behaviors as picking up paper, wiping the black board clean, picking up toys, playing quietly with the cards, clay, blocks or army men, jumping rope and playing with the Hula Hoop were considered imitative prosocial behaviors. (2) Non-imitative prosocial. Magazines and other toys, such as pick-up-sticks, were provided. Quiet play with any of the toys or materials that did not appear in the television segment were classified as nonimitative prosocial behaviors. (3) Imitative aggression. Any of the aggressive or destructive behaviors that were exhibited by the models and subsequently demonstrated by the subjects, including such behaviors as spilling the water or waste paper basket, scribbling on the black board, kicking and punching the Bobo Doll, throwing toys around the room and so on, were classified as imitative aggression. (4) Nonimitative aggression. Several toys, such as a rifle, pistol and hand-held "punch ball," were in the experimental room. The aggressive

use of these toys and other toys and materials in the room that were not displayed in the segment, yet were displayed by the subjects, were classified as nonimitative aggressive behaviors.

Each subject spent 20 minutes in the test room while his behavior was rated in terms of the four predetermined response categories (a fifth, "no response," was also provided) by a specially trained naive (to the experiment's conditions) judge who observed the child through a one way mirror in an adjoining observation room. The 20 minute session was divided into 5 second intervals by means of a tape recorded message designed to indicate these intervals. This yielded a total number of 240 response units for each subject. Each response unit was scored according to the type of behavior exhibited by the subject in that 5 second interval. In order to eliminate the possibility of variations in behavior due to the placement of the toys and objects, a set arrangement of these materials was used for all subjects.

RESULTS

To analyze the results, a factorial analysis of variance was performed using three factors: the subject's sex (male or female), level of self-esteem (high or low) and condition (TV or NoTV). Seven dependent variables were analyzed: (1) Imitative aggression; (2) Nonimitative aggression; (3) Total modeled aggression (the sum of 1 and 2); (4) Imitative prosocial; Nonimitative prosocial; (6) Total modeled prosocial (the sum of 4 and 5); and, (7) Total imitation (the sum of 1 and 4).

When F values were significant at the .05 level of confidence, t-tests for differences between several means were used to make comparisons among the individual means to identify significant differences. The .05 level of significance was again used.

Before the actual analysis of the data was begun, an F max. test for homogeneity of variances indicated that the data violated the homogeneity assumption.

To deal with this situation, the scores were transformed to achieve homogeneity via the transformation $y = \sqrt{x}$ (where y is the transformed score and x the original raw score). F max. tests then revealed homogeneity of variances with the transformed scores.

Imitative Aggression

The analysis of variance for imitative aggression revealed a significant second-order interaction effect between the three independent measures of self-esteem, sex and condition ($F=6.62$, $p < .025$). T-tests for differences between several means (Table 1) indicated that the TV-high-male group displayed significantly more imitative aggression than any of the other groups. Also, the NoTV-low-male group showed significantly more imitative aggression than the TV-low-male group.

Nonimitative Aggression

Analysis of variance for nonimitative aggression showed no significant main or interaction effects. (Table 1)

Total Modeled Aggression

Analysis of variance revealed a significant second order interaction effect for total modeled aggression, sex X esteem X condition ($F=5.27$, $p < .05$). T-tests revealed that the TV-high-male group displayed significantly more total modeled aggression than the NoTV-high-male, TV-high-female, NoTV-high-female, TV-low-male, TV-low-female and NoTV-low-female groups. Also, NoTV-low-male showed significantly more modeled aggression than the TV-low-male, TV-high-female and TV-low-female conditions (Table 1). The pattern is similar to that found for the imitative aggression measure.

Imitative Prosocial

Analysis of variance for imitative prosocial behavior showed a significant first order interaction effect, esteem X condition ($F=9.30$, $p < .005$). T-tests for

differences between the combined esteem/condition means revealed that the TV-low-group showed significantly more imitative prosocial behavior than either the TV-high, NoTV-high or NoTV-low groups (Table 2).

Nonimitative Prosocial

Analysis of variance for the nonimitative prosocial measure revealed no significant main or interaction effects (Table 1).

Total Modeled Prosocial

Analysis of variance for the total modeled prosocial measure revealed a significant first order interaction between esteem and condition ($F=10.47$, $p<.001$). T-tests for differences between the combined esteem/condition means showed TV-high engaging in significantly less modeled prosocial behavior than TV-low or NoTV-high; and, TV-low showed significantly more of this prosocial behavior than NoTV-low.

Total Imitation

Analysis of variance for the total imitation measure revealed a significant second order interaction effect, sex X esteem X condition ($F=77.39$, $p<.001$). T-tests for differences among the eight group means showed that the TV-high-female group exhibited significantly less total imitation than the NoTV-low-female, NoTV-low-male, TV-low-male and TV-low-male groups. Also, TV-low-female and TV-low-male displayed significantly more total imitation than the NoTV-high-male, TV-high-male and NoTV-high-female groups, while TV-low-male showed significantly more total imitation than the NoTV-low-female and NoTV-low-male groups (Table 1). These results lend further support to the basic idea that there is a relationship between self-esteem and imitation.

DISCUSSION

The first hypothesis that low levels of self-esteem would lead to greater amounts of imitation, was partially supported. A significant first order

interaction between esteem and condition was found for the imitative prosocial measures. In terms of total imitation, the same pattern emerged. The low self-esteem male and female subjects who saw the television segment showed significantly more imitation than the high self-esteem males and females who saw it, as well as more than the subjects in the NoTV groups. The imitative aggression measure, however, did not follow the predicted pattern. In this case, the high self-esteem males who saw the television segment showed significantly more imitative aggression than the other groups. This would appear to run counter to the hypothesis, but, as the results suggest, the relationship between self-esteem and imitation depends not only on self-esteem level, but on the reinforcement that can be expected for that imitation. The measures of prosocial and total imitation show that the low self-esteem subjects did indeed imitate to a greater extent than did the high self-esteem subjects, but in light of the findings for the imitative aggression measure, they also suggest that this imitation is quite selective. Indeed, the low self-esteem males who saw the segment engaged in less imitative aggression than did those low self-esteem male subjects who did not. In other words, after watching the segment, this group showed less imitative aggression than those who did not see it.

The second hypothesis, that low self-esteem subjects would display significantly greater amounts of prosocial modeling behavior, both imitative and nonimitative, than children with high levels of self-esteem was clearly confirmed. Those low self-esteem subjects who saw the television segment, regardless of their sex, showed significantly more imitative prosocial behavior than those high in self-esteem that also saw the segment and both high and low self-esteem subjects who did not see it. As a result of viewing the segment, then, these subjects showed much more imitative prosocial behavior than they might have otherwise, and much more than those with high self-esteem who saw the television segment. The total modeled prosocial measure, incorporating both imitative and nonimitative prosocial behavior, showed similar results.

Also in terms of total modeled prosocial behavior, the low self-esteem subjects who saw the segment showed significantly more prosocial behavior than the low self-esteem subjects who did not see it. Therefore, it cannot be argued that the total modeled prosocial behavior was simply a function of a low level of self-esteem. Rather, self-esteem level interacted with the TV or NoTV conditions. There was no difference in the amount of total modeled prosocial behavior between high and low self-esteem subjects who did not see the program; the increased amount of total modeled prosocial behavior apparently depended not only on the subject's level of self-esteem, but whether he or she was presented with prosocial behaviors suitable for modeling.

It was hypothesized that the low self-esteem group would engage in significantly more nonimitative prosocial behavior than the high self-esteem group. However, there were no differences between the groups. A tendency in the direction of the hypothesis was noted (and is represented in the total modeled prosocial measure), but there were no significant differences between high and low self-esteem. This may have been the result of any one or all of the following factors. The low self-esteem individuals engaged in imitative prosocial behavior to such an extent that there was little opportunity in the short twenty minute time period to engage in nonimitative prosocial behaviors. Another possibility is that, when presented with a choice of the two behavioral alternatives, imitative or nonimitative prosocial behavior, the low self-esteem child chose to "play it safe" and select the imitative behaviors, for he has seen them displayed by the television models, and as such they promise him a greater probability of receiving reinforcement or reward.

The third hypothesis tested was that males and females with comparable self-esteem levels would display relatively equal amounts of modeling of prosocial behavior, but boys would display a greater amount of antisocial modeling behavior.

This hypothesis was strongly supported. As predicted, there were no male/female differences in either imitative, nonimitative or total modeled prosocial behavior. The differences that did appear within these measures were across sex; that is, the subject's sex was not a determining factor in any prosocial behavior subsequent to viewing the segment. But, as predicted, there were significant differences between male and female subjects' antisocial behavior subsequent to viewing the television segment. Both the imitative and total modeled aggression measures showed significant interaction between esteem level, TV or NoTV condition and sex. That is, the subject's sex was an important determinant in displayed antisocial behavior subsequent to viewing the segment.

In terms of imitative aggression, the high self-esteem male subjects that saw the program displayed significantly more antisocial behavior than any of the other groups. This is as predicted. Yet, the hypothesis also suggests that low self-esteem boys would show more imitative aggression than low self-esteem girls. This was not the case, as there was no significant difference in imitative aggression between the two sexes at the low self-esteem level. This is easily explained in light of the second hypothesis which predicted that low self-esteem subjects, regardless of sex, would (and did) model the prosocial rather than the antisocial behaviors shown in the segment. This also implies that at least for these subjects in this experiment, the effect of self-esteem was somewhat more influential in deciding behavior after viewing the segment than was the effect of sex, under conditions where both pro and antisocial behaviors were shown together.

The results for the total modeled aggression measure also supported this hypothesis.

The fourth hypothesis tested was that high self-esteem males would display significantly more aggressive behavior than low self-esteem males after viewing the television segment. It was supported. As already stated, high self-esteem males who viewed the segment showed significantly more imitative aggression than any of the other groups, including the low self-esteem males who saw the segment.

These same high self-esteem males who saw the program showed significantly more total modeled aggression than the low self-esteem males who also saw it. In addition, low self-esteem male subjects who saw the segment showed significantly less total aggression than low self-esteem males who did not see the segment. This implies that not only will high self-esteem males show more antisocial behavior than low self-esteem males subsequent to viewing a program of this type, but low self-esteem males who see the program, containing both aggressive and prosocial behaviors, will show less total modeled aggression (and therefore more prosocial behavior) than low self-esteem males who do not see such a program.

Based on the hypotheses and subsequent findings of this study, a general relationship between self-esteem and modeling from television clearly emerges. The low self-esteem individual will model more of the prosocial behaviors than the aggressive behaviors that he sees on television. Moreover, he will do this to a greater extent than high self-esteem individuals. High self-esteem males tend to model the aggressive behaviors they see presented on television to a significantly greater degree than females or low self-esteem males. Sex differences in modeling are only present with regard to aggressive behavior; females showed little such modeling in comparison to males after seeing the television segment. Sex and self-esteem, in conjunction with the types of behaviors presented by the television models, serve as reliable predictors of subsequent anti and prosocial behavior.

This study leaves one important question unanswered. It has been demonstrated here and elsewhere that certain children will model the prosocial behaviors that they see presented on television.¹⁷ But what if there are few prosocial behaviors to be seen? Taking this study's findings as indicative of what really happens in actual television viewing, it might be argued that low self-esteem children will simply ignore the aggressive behaviors that they see on television. This may not be the case. The low self-esteem children in the experiment ignored the aggressive behaviors perhaps because these behaviors were presented in conjunction with a class

of behaviors that promised greater reward and reinforcement---prosocial behavior. As Gorbner has documented, however, actual television viewing seldom provides such an alternative.^{1a} Moreover, as Gorbner has also shown, television usually shows aggression as being rewarded. The low self-esteem child seeks the reward that certain behaviors offer, not any inherent satisfaction from that behavior. His life experience tells him that prosocial behaviors lead to reinforcement, so when offered these behaviors for modeling, he accepts them into his behavioral repertory. Actual television, on the other hand, may tell him something very different. It may tell him that status and success are the rewards for aggression. The child is not offered a choice of behaviors with freedom to choose those behaviors that will best meet his needs. Instead, he is generally offered one class of behaviors and shown that these aggressive behaviors will be rewarded. Clearly, further research is needed to examine the effects of programming that does not offer prosocial alternatives to children with varying self-esteem levels.

Table 1

COMPARISON OF TRANSFORMED MEAN SCORES FOR EACH MEASURE WHERE ANALYSIS
OF VARIANCE SHOWED A SECOND ORDER INTERACTION OR NO
DIFFERENCES BETWEEN MEANS

	TV-H-M	NotV-H-M	TV-H-F	NotV-H-F	TV-L-H	NotV-L-M	TV-L-F	NotV-L-F
Imitative Aggression	7.22a	3.92bc	2.91bc	3.25bc	2.50c	4.92ab	3.52bc	4.02bc
Nonimitative Aggression*	5.91	4.36	3.12	3.73	2.88	4.36	2.57	3.75
Total Modeled Aggression	9.74a	6.05b	4.36bc	5.17b	4.01bc	6.94d	4.53bc	5.94b
Nonimitative Prosocial*	8.46	8.42	8.84	9.74	5.87	8.01	7.22	9.22
Total Imitation	10.57c	10.37c	9.25a	10.66c	13.23b	11.33bd	12.44b	11.16bd

NOTE--In each row, means having different postscripts are significantly different at the .05 level of confidence.

*There are no significant differences between any of the means.

TABLE 2

COMPARISON OF TRANSFORMED MEAN SCORES FOR EACH MEASURE WHERE
ANALYSIS OF VARIANCE SHOWED A FIRST
ORDER INTERACTION

	TV-H	TV-L	NoTV-H	NoTV-L
Imitative Prosocial	7.73b	12.71a	9.43b	9.81b
Total Modeled Prosocial	12.28a	14.47c	13.77b	13.28b

NOTE--In each row means having different
postscripts are significantly dif-
ferent at the .05 level of confi-
dence.

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16 The first and fourth quartiles were chosen in this instance in order to assure the testing of the independent variable, self-esteem. All individuals display different levels of self-esteem in different circumstances, but there are individuals that generally display either high or low levels of self-esteem across all situations. Including only those subjects who scored at the top and bottom of the self-esteem inventory insured the inclusion of these generally high and low self-esteem individuals into the conduct of the experiment. This has been the procedure employed in practically all of the studies to date that deal with self-esteem as an independent variable.

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